Amendments to the Claims

Please amend page 10, line 1 as follows:

~~Claims~~ **What is claimed is:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method ~~Method~~ for phenotyping of a human individual comprising determining *in vivo* protein activity and thereby obtaining a characteristic of said human individual, the determination comprising
   a) hyperpolarising the NMR active nuclei of samples collected from a human individual preadministered with at least one probe compound containing at least one NMR active nuclei, and
   b) analysing said samples by NMR spectroscopy.

2. (Currently amended) The method ~~Method~~ according to claim 1, wherein only one probe compound containing at least one NMR active nuclei is used.

3. (Currently amended) The method ~~Method~~ according to claim 1, wherein more than one probe compound containing at least one NMR active nuclei is used.

4. (Currently amended) The method ~~Method~~ according to ~~claims 1 to 3~~ claim 1, further comprising the step of determining ~~wherein~~ the activity of at least one of several proteins and ~~or~~ isoenzymes ~~is determined~~ and thus obtaining a set of characteristics of said human individual ~~is obtained~~.

5. (Currently amended) The method ~~Method~~ according to ~~claims 1 to 4~~ claim 1, wherein the method is carried out for several human individuals and thus characteristics of said several human individuals are obtained.

6. (Currently amended) The method ~~Method~~ according to claim 5, further comprising the step of grouping ~~wherein~~ human individuals who exhibit the same or similar characteristics ~~are grouped~~.

7. (Currently amended) The method ~~Method~~ according to claim 6, further comprising the step of ~~for~~ phenotyping of a clinical trial group

8. (Currently amended) The method ~~Method~~ according to ~~claims 1 to 4~~ claim 1, further comprising the step of comparing ~~wherein~~ said characteristic of said human individual ~~is compared~~ with characteristics of other human individuals, ~~preferably having been obtained according to claim 6,~~ and thereby classifying said human individual into a group.

9. (Currently amended) The method ~~Method~~ according to claim 8, further comprising the step of ~~for~~ phenotyping of ~~said~~a human individual prior to said human individual receiving a ~~receives~~ therapeutic drug treatment.

10. (Currently amended) The method ~~Method~~ according to ~~claims 1 to 9~~ claim 1, wherein the at least one probe compound is enriched with NMR active nuclei.

11. (Currently amended) The method ~~Method~~ according to ~~claims 1 to 10~~ claim 1, wherein hyperpolarisation is carried out by means of polarisation transfer from a noble gas, brute force, dynamic nuclear polarisation (DNP) or spin refrigeration.

12. (Currently amended) The method ~~Method~~ according to ~~claims 1 to 11~~ claim 1, wherein the collected samples are biofluids.

13. (Currently amended) The method ~~Method~~ according to ~~claims 1 to 12~~ claim 1, wherein the protein activity to be determined is the activity of a protein selected from the group consisting of NADPH quinone oxireductases, CYP450, N-acetyltransferase, glutathione transferase, thiomethyltransferase, thiopurine

methyltransferase, pseudocholinesterase, sulfotransferase, UDP-glucuronosyl transferase, serotonin transport protein, ATP binding cassette (ABC's) and p-glycoprotein.

14. (Currently amended) The method ~~Method~~ according to ~~claims 1 to 13~~ claim 1, wherein the at least one probe compound is a substrate, inducer or inhibitor for Cytochrome P 450 (CYP450)

15. (Currently amended) The method ~~Method~~ according to claim 14, wherein the at least one probe compound is a substrate, inducer or inhibitor for a CYP 450 isoenzyme selected from the group consisting of CYP1A2, CYP2A6, CYP2C8/9, CYP2C19, CYP2D6, CYP2E1 and CYP3A4.

16. (Currently amended) The method ~~Method~~ according to ~~claims 1 to 15~~ claim 1, wherein the at least one probe compound is selected from the group consisting of phenacetin, coumarin, tolbutamide, phenytoin, mephenytoin, S-mephenytoin, bufuralol, chlorzoxazone, midazolam, caffeine, dapsone, diclofenac, debrisoquine, bupropion, antipyrine, dextromethorphan, warfarin, diazepam, alprazolam, triazolam, flurazepam, chlodiazepoxide theophylline, phenobarbital propranolol, metoprolol, labetalol, nifedipine, digitoxin, quinidine, mexiletine, lidocaine, imipramine, flurbiprofen, omeprazole, terfenadine, furafylline, codeine, nicotine, sparteine, erythromycin, benzoylcholine, butrylcholine, paraoxon, para-aminosalicylic acid, isoniazid, sulfamethazine, 5-fluorouracil, trans-stilbene oxide, D-penicillamine, captopril, ipomeanol, cyclophosphamide, halothane, zidovudine, testosterone, acetaminophen, hexobarbital, carbamazepine, cortisol, oltipraz, cyclosporin A and paclitaxel.